

Mineral Industry Surveys

For information, contact:

Lisa A. Corathers, Silicon Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4973, Fax: (703) 648-7757
E-mail: lcorathers@usgs.gov

Lisa D. Miller (Data)
Telephone: (703) 648-7973
Fax: (703) 648-7975
E-mail: millerl@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SILICON IN FEBRUARY 2005

Preliminary data for February 2005 indicate that domestic production of silicon ferroalloys plus metal, on a gross-weight basis, decreased by 6% compared with the production figure of 31,500 metric tons (t) in January 2005, according to the U.S. Geological Survey. Net domestic shipments and stocks increased by 13% and 14%, respectively, compared with those of the prior month. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

Based on a gross-weight comparison of January 2005 trade data (tables 2 and 3) to those of the December 2004, ferrosilicon

exports decreased by 2%, owing to a decrease in the ferrosilicon, more than 55% silicon, trade category. Silicon metal exports decreased by about 1%, owing primarily to a decrease in the high-purity (greater than 99.99% silicon) silicon metal trade category. Ferrosilicon imports increased by 15%, owing primarily to an increase in the ferrosilicon, 55%-80% silicon, other, and magnesium ferrosilicon trade categories. Silicon metal imports decreased by 2% primarily because of a decrease in the other silicon metal trade category.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
February 3	65.00-68.00	54.00-56.00	80.00-82.00
February 10	65.00-68.00	54.00-55.00	80.00-82.00
February 17	63.00-66.00	54.00-55.00	78.00-82.00
February 24	63.00-66.00	54.00-56.00	78.00-82.00

¹Source: Ryan's Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2005^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks, February 28
	February	Year to date	February	Year to date	
Ferrosilicon, all grades ^{5, 6}	17,600	35,300	17,200	32,200	20,100
Silicon metal, excludes semiconductor grades	12,100	25,900	11,800	22,400	10,200

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁶Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2005^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	480	288	\$446,000	480	288	\$446,000
Mexico	58	35	72,200	58	35	72,200
Netherlands	49	38	78,800	49	38	78,800
Total	587	361	597,000	587	358	597,000
Other ferrosilicon:						
Canada	264	132	265,000	264	132	265,000
Mexico	43	22	58,200	43	22	58,200
Spain	7	4	6,470	7	4	6,470
Total	314	157	330,000	314	157	330,000
Total ferrosilicon	902	518	927,000	902	518	927,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	128	XX	\$4,710,000	128	XX	\$4,710,000
Czech Republic	8	XX	342,000	8	XX	342,000
Finland	34	XX	871,000	34	XX	871,000
France	13	XX	353,000	13	XX	353,000
Germany	175	XX	6,170,000	175	XX	6,170,000
Japan	694	XX	28,200,000	694	XX	28,200,000
Korea, Republic of	58	XX	2,860,000	58	XX	2,860,000
Norway	68	XX	2,290,000	68	XX	2,290,000
Taiwan	51	XX	2,260,000	51	XX	2,260,000
United Kingdom	8	XX	955,000	8	XX	955,000
Other (13 countries)	23	XX	2,370,000	23	XX	2,370,000
Total	1,260	1,260 ^e	51,400,000	1,260	1,260 ^e	51,400,000
99.00% - 99.99% silicon:						
Brazil	22	21	63,600	22	21	63,600
Germany	2	2	3,330	2	2	3,330
Mexico	6	6	8,940	6	6	8,940
Trinidad and Tobago	14	13	24,300	14	13	24,300
United Kingdom	18	18	25,500	18	18	25,500
Total	62	61	126,000	62	61	126,000
Other silicon:						
Canada	56	54	74,500	56	54	74,500
China	2	2	3,200	2	2	3,200
Hong Kong	16	16	93,000	16	16	93,000
Indonesia	5	5	7,030	5	5	7,030
Japan	117	113	154,000	117	113	154,000
Korea, Republic of	413	401	545,000	413	401	545,000
Mexico	53	52	143,000	53	52	143,000
Netherlands	22	21	108,000	22	21	108,000
Russia	224	218	296,000	224	218	296,000
United Kingdom	18	17	151,000	18	17	151,000
Other (Poland)	4	4	5,550	4	4	5,550
Total	932	905	1,580,000	932	905	1,580,000
Total silicon metal	2,260	2,230	53,100,000	2,260	2,230	53,100,000

^eEstimated. XX Not applicable.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
China	10	5	\$13,300	10	5	\$13,300
Germany	18	6 ³	25,800	18	6 ³	25,800
Total	28	11	39,100	28	11	39,100
55% - 80% silicon, Other:						
Brazil	24	18	26,900	24	18	26,900
Canada	1,020	766	857,000	1,020	766	857,000
China	7,780	5,950	5,760,000	7,780	5,950	5,760,000
France	282	193	512,000	282	193	512,000
Germany	50	38	203,000	50	38	203,000
India	20	14	19,000	20	14	19,000
Norway	552	405	627,000	552	405	627,000
Russia	2,500	1,760	1,770,000	2,500	1,760	1,770,000
Venezuela	79	60	71,900	79	60	71,900
Total	12,300	9,200	9,850,000	12,300	9,200	9,850,000
Magnesium ferrosilicon:						
Argentina	438	203	355,000	438	203	355,000
Brazil	290	131	269,000	290	131	269,000
Canada	441	203	416,000	441	203	416,000
China	377	170	289,000	377	170	289,000
India	2	9 ³	20,700	2	9 ³	20,700
Japan	16	8	18,100	16	8	18,100
Netherlands	27	13	16,600	27	13	16,600
Norway	1,070	496	906,000	1,070	496	906,000
Total	2,660	1,230	2,290,000	2,660	1,230	2,290,000
Other ferrosilicon:						
Canada	896	235	680,000	896	235	680,000
India	38	28	66,400	38	28	66,400
Total	935	264	746,000	935	264	746,000
Total ferrosilicon	15,900	10,700	12,900,000	15,900	10,700	12,900,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Australia	(4)	XX	\$2,080	(4)	XX	\$2,080
China	2	XX	16,400	2	XX	16,400
Denmark	(4)	XX	117,000	(4)	XX	117,000
Germany	56	XX	6,440,000	56	XX	6,440,000
Italy	43	XX	1,520,000	43	XX	1,520,000
Japan	58	XX	3,160,000	58	XX	3,160,000
Korea, Republic of	2	XX	248,000	2	XX	248,000
Philippines	60	XX	78,700	60	XX	78,700
Spain	1	XX	7,970	1	XX	7,970
Total	222	222 ^e	11,600,000	222	222 ^e	11,600,000
99.00% - 99.99% silicon:						
Australia	759	753	1,280,000	759	753	1,280,000
Brazil	5,690	5,650	7,230,000	5,690	5,650	7,230,000
Canada	1,090	1,080	1,630,000	1,090	1,080	1,630,000
France	200	198	253,000	200	198	253,000
Norway	582	578	2,140,000	582	578	2,140,000
Philippines	40	39	58,000	40	39	58,000
South Africa	2,520	2,280 ³	3,330,000	2,520	2,280 ³	3,330,000
Sweden	12	12	79,600	12	12	79,600
Total	10,900	10,600	16,000,000	10,900	10,600	16,000,000
Other silicon:						
Belgium	25	2 ³	26,700	25	2 ³	26,700
Brazil	720	709	922,000	720	709	922,000
Canada	811	796	1,430,000	811	796	1,430,000
China	450	444	489,000	450	444	489,000
Japan	11	(4) ³	12,000	11	(4) ³	12,000
Norway	490	480	670,000	490	480	670,000
South Africa	152	149	180,000	152	149	180,000
Ukraine	60	59	99,400	60	59	99,400
United Kingdom	(4)	(4)	5,190	(4)	(4)	5,190
Total	2,720	2,640	3,830,000	2,720	2,640	3,830,000
Total silicon metal	13,800	13,500	31,400,000	13,800	13,500	31,400,000

^eEstimated. XX Not applicable.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.